UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/894,031	06/27/2001	Tatsuya Kanno	60586-300601	5489

34205 7590 09/15/2004

OPPENHEIMER WOLFF & DONNELLY LLP
45 SOUTH SEVENTH STREET, SUITE 3300
MINNEAPOLIS, MN 55402

EXAMINER	
STONER, KILEY SHAWN	

ART UNIT	PAPER NUMBER
1725	

DATE MAILED: 09/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/894,031	KANNO ET AL.	
	Examiner	Art Unit	
	Kiley Stoner	1725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 August 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 3-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 3-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 and 3-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Ueda et al. (6,350,850 B1). Ueda et al. teaches a polycondensating reactor in which the the dicarboxylic acid and the diol are polycondensated; a separating device, which is attached to the reactor which separates the organic solvent and water that are distilled from the reactor, while, discharging the separated water outside the system and fluxing the organic solvent; and the dicarboxylic acid and diol are polycondensated under normal pressure by adding a distannoxane as a catalyst (column 4, line 55-column 5, line 11; column 5, lines 26-41; column 5, line 56-column 6, line 16; column 6, line 58-column 7, line 20; and the Examples); said polycondensating reactor used in said preparation method is a longitudinal-type reactor in which a stirrer, which maintains separated two-phase states having a phase consisting of a mixed solution containing the dicarboxylic acid, the diol and polyester to be generated and an organic solvent phase covering the other phase, and stirs the mixed solution, is installed (column 6, line

58-column 7, line 20; and the Examples); a dissolving vessel for melting and uniforming the dicarboxylic acid and the diol is installed at the preceding stage of the polycondensating reactor (abstract and the Examples). It is inherent that the uniforming step in Ueda et al. is being performed in a vessel prior to polycondensating.

Ueda et al. also teaches the boiling point of said organic solvent is not less that the boiling point of water or it has a boiling point not less than the melting point of polyester to be generated (column 1, lines 32-60; column 4, line 64-column 5, line 11); providing a polycondensating reactor and a separating device operably attached to the reactor; placing the dicarboxylic acid, diol, and organic solvent in the reactor; separating the organic solvent and water from the reactor with the separating device; and adding distannoxane to the reactor to act as a catalyst in polycondensating the dicarboxylic acid and the diol to from a polyester (column 6, lines 24-34). It is inherent that the separation in Ueda et al. is being performed in a separation device.

In addition, Ueda et al. teaches providing a polycondensating reactor and a separating device operably attached to the reactor comprises providing a longitudinal-type polycondensating reactor with an installed stirrer and a separating device operably attached to the reactor, the stirrer capable of maintaining two-phase states wherein one phase consists of a mixed solution containing dicarboxylic acid, diol, and the polyester to be generated, and the other phase consists of an organic solvent phase (column 4, line 55-column 5, line 11; column 5, lines 26-41; column 5, line 56-column 6, line 16; column 6, line 58-column 7, line 20; and the Examples); providing a dissolving vessel installed at a preceding stage of the polycondensating reactor; melting and uniforming

the dicarboxylic acid and the diol in the dissolving vessel prior to placing the dicarboxylic acid and the diol in the reactor with the organic solvent (abstract and the Examples). It is inherent that the uniforming step in Ueda et al. is being performed in a vessel prior to polycondensating.

Ueda et al. teaches placing dicarboxylic acid, diol, and an organic solvent in the reactor comprises placing dicarboxylic acid, diol, and an organic solvent having a boiling point that is equal to or greater than the boiling point of water (column 1, lines 32-60; column 4, line 64-column 5, line 11); and placing dicarboxylic acid, diol, and an organic solvent in the reactor comprises placing dicarboxylic acid, diol, and an organic solvent having a boiling point that is equal to or greater than the boiling point of the polyester to be generated (column 1, lines 32-60; column 4, line 64-column 5, line 11).

> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1 and 3-10 are rejected under 35 U.S.C. 102(a) as being anticipated by Ueda (JP-02001026640A). Ueda teaches a polycondensating reactor in which the the dicarboxylic acid and the diol are polycondensated; a separating device, which is attached to the reactor which separates the organic solvent and water that are distilled from the reactor, while, discharging the separated water outside the system and fluxing the organic solvent; and the dicarboxylic acid and diol are polycondensated under normal pressure by adding a distannoxane as a catalyst (abstract and translation); said polycondensating reactor used in said preparation method is a longitudinal-type reactor in which a stirrer, which maintains separated two-phase states having a phase

consisting of a mixed solution containing the dicarboxylic acid, the diol and polyester to be generated and an organic solvent phase covering the other phase, and stirs the mixed solution, is installed (abstract and translation); a dissolving vessel for melting and uniforming the dicarboxylic acid and the diol is installed at the preceding stage of the polycondensating reactor (abstract and translation). It is inherent that the uniforming step in Ueda is being performed in a vessel prior to polycondensating.

Ueda also teaches the boiling point of said organic solvent is not less that the boiling point of water or it has a boiling point not less than the melting point of polyester to be generated (abstract and translation); providing a polycondensating reactor and a separating device operably attached to the reactor; placing the dicarboxylic acid, diol, and organic solvent in the reactor; separating the organic solvent and water from the reactor with the separating device; and adding distannoxane to the reactor to act as a catalyst in polycondensating the dicarboxylic acid and the diol to from a polyester (abstract and translation). It is inherent that the separation in Ueda is being performed in a separation device.

In addition, Ueda teaches providing a polycondensating reactor and a separating device operably attached to the reactor comprises providing a longitudinal-type polycondensating reactor with an installed stirrer and a separating device operably attached to the reactor, the stirrer capable of maintaining two-phase states wherein one phase consists of a mixed solution containing dicarboxylic acid, diol, and the polyester to be generated, and the other phase consists of an organic solvent phase (abstract and translation); providing a dissolving vessel installed at a preceding stage of the

polycondensating reactor; melting and uniforming the dicarboxylic acid and the diol in the dissolving vessel prior to placing the dicarboxylic acid and the diol in the reactor with the organic solvent (abstract and translation). It is inherent that the uniforming step in Ueda is being performed in a vessel prior to polycondensating.

Ueda teaches placing dicarboxylic acid, diol, and an organic solvent in the reactor comprises placing dicarboxylic acid, diol, and an organic solvent having a boiling point that is equal to or greater than the boiling point of water (abstract and translation); and placing dicarboxylic acid, diol, and an organic solvent in the reactor comprises placing dicarboxylic acid, diol, and an organic solvent having a boiling point that is equal to or greater than the boiling point of the polyester to be generated (abstract and translation).

Claims 1 and 3-10 are rejected under 35 U.S.C. 102(a) as being anticipated by Ueda et al. (EP-1069145A1). Ueda et al. teaches a polycondensating reactor in which the the dicarboxylic acid and the diol are polycondensated; a separating device, which is attached to the reactor which separates the organic solvent and water that are distilled from the reactor, while, discharging the separated water outside the system and fluxing the organic solvent; and the dicarboxylic acid and diol are polycondensated under normal pressure by adding a distannoxane as a catalyst (paragraphs [0003]-[0006], [0024]-[0025], [0028], [0031]-[0033], [0036]-[0039]; and the Examples); said polycondensating reactor used in said preparation method is a longitudinal-type reactor in which a stirrer, which maintains separated two-phase states having a phase

consisting of a mixed solution containing the dicarboxylic acid, the diol and polyester to be generated and an organic solvent phase covering the other phase, and stirs the mixed solution, is installed (paragraphs [0003]-[0006], [0024]-[0025], [0028], [0031]-[0033], [0036]-[0039]; and the Examples); a dissolving vessel for melting and uniforming the dicarboxylic acid and the diol is installed at the preceding stage of the polycondensating reactor (abstract and the Examples). It is inherent that the uniforming step in Ueda et al. is being performed in a vessel prior to polycondensating.

Ueda et al. also teaches the boiling point of said organic solvent is not less that the boiling point of water or it has a boiling point not less than the melting point of polyester to be generated (paragraphs [0003]-[0006], [0024]-[0025], [0028], [0031]-[0033], [0036]-[0039]; and the Examples); providing a polycondensating reactor and a separating device operably attached to the reactor; placing the dicarboxylic acid, diol, and organic solvent in the reactor; separating the organic solvent and water from the reactor with the separating device; and adding distannoxane to the reactor to act as a catalyst in polycondensating the dicarboxylic acid and the diol to from a polyester (paragraphs [0003]-[0006], [0024]-[0025], [0028], [0031]-[0033], [0036]-[0039]; and the Examples). It is inherent that the separation in Ueda et al. is being performed in a separation device.

In addition, Ueda et al. teaches providing a polycondensating reactor and a separating device operably attached to the reactor comprises providing a longitudinal-type polycondensating reactor with an installed stirrer and a separating device operably attached to the reactor, the stirrer capable of maintaining two-phase states wherein one

phase consists of a mixed solution containing dicarboxylic acid, diol, and the polyester to be generated, and the other phase consists of an organic solvent phase (paragraphs [0003]-[0006], [0024]-[0025], [0028], [0031]-[0033], [0036]-[0039]; and the Examples); providing a dissolving vessel installed at a preceding stage of the polycondensating reactor; melting and uniforming the dicarboxylic acid and the diol in the dissolving vessel prior to placing the dicarboxylic acid and the diol in the reactor with the organic solvent (abstract and the Examples). It is inherent that the uniforming step in Ueda et al. is being performed in a vessel prior to polycondensating.

Ueda et al. teaches placing dicarboxylic acid, diol, and an organic solvent in the reactor comprises placing dicarboxylic acid, diol, and an organic solvent having a boiling point that is equal to or greater than the boiling point of water (paragraphs [0003]-[0006], [0024]-[0025], [0028], [0031]-[0033], [0036]-[0039]; and the Examples); and placing dicarboxylic acid, diol, and an organic solvent in the reactor comprises placing dicarboxylic acid, diol, and an organic solvent having a boiling point that is equal to or greater than the boiling point of the polyester to be generated (paragraphs [0003]-[0006], [0024]-[0025], [0028], [0031]-[0033], [0036]-[0039]; and the Examples).

Response to Arguments

Applicant's arguments with respect to claims 1 and 3-10 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art of record that is cited as of interest is presented on the form-892.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kiley Stoner whose telephone number is (571) 272-1183. The examiner can normally be reached on Monday-Thursday (7:30 a.m. to 6:00 p.m.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on Monday-Friday at (571) 272-1171. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KILEY S. STONER
PRIMARY EXAMINER

9/13/04